

## PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: §  
Jack A. Roth et al. §  
Serial No. 07/960,513 § Group Art Unit: Unknown  
Filed: October 13, 1992 § Examiner: Unknown  
For: METHODS AND COMPOSITIONS § Atty. Dkt.: UTSC:295/PAR  
FOR RETROVIRAL VECTOR §  
MEDIATED TRANSDUCTION §

DECLARATION CLAIMING SMALL ENTITY STATUS  
37 C.F.R. §§1.9(f) and 1.27(a) - NONPROFIT ORGANIZATION

Honorable Commissioner of Patents  
and Trademarks  
Washington, D.C. 20231

Sir:

I hereby declare that I am an official empowered to act on behalf of the nonprofit organization identified below:

Name of Organization: Board of Regents  
The University of Texas System

Address of Organization: 201 West 7th Street  
Austin, Texas 78701

The type of organization is a university.

I hereby declare that the organization identified above qualifies as a nonprofit organization as defined in 37 C.F.R. § 1.9(e) (1), and thus is a "small entity" as defined in § 1.9(f), for purposes of paying reduced fees under Sections 41(a) and (b) of Title 35, United States Code, with regard to the above-referenced application.


I hereby declare that exclusive rights to the invention have been conveyed to and remain with the organization, with respect to the above-referenced invention, with the exception that the Government may have rights in the invention pursuant to a funding agreement under 35 U.S.C. § 202(c)(4): NIH Grants RO1 CA 45187 and CA 16672.

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such

willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

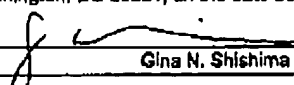
BOARD OF REGENTS,  
THE UNIVERSITY OF TEXAS SYSTEM

By:   
Ray Farabee, Vice Chancellor

Date: 12-7-92

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CERTIFICATE OF MAILING 37 C.F.R. 1.8	
I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, DC 20231, on the date below:	
October 18, 2001 Date	 Gina N. Shishima

PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Jack A. Roth

Group Art Unit: 1632

Serial No.: 09/447,681

Examiner: Crouch, D.

Filed: November 23, 1999

Atty. Dkt. No.: INRP:003--2

For: ADENOVIRUS p53 COMPOSITIONS  
AND METHODSSUBSTITUTE DECLARATION OF LOUIS ZUMSTEIN, PH.DUNDER 37 C.F.R. §1.132Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

I, Louis Zumstein, Ph.D., declare the following:

1. I am the Director of Research at Introgen Therapeutics in Houston, Texas. I have a Ph.D in Biochemistry and Molecular Biology from Harvard University. I have done extensive research on tumor suppressor genes, including p53, and their delivery to cells via viral vectors. I have authored five scientific papers on these topics. My *curriculum vitae* is attached as Exhibit 1.

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2. I am familiar with the level of skill of scientists working in the field of gene therapy as of the October, 1992 priority date of the referenced application.

3. I have read the specification and pending claims 66-70 (as amended) for the above-referenced case. Claim 66 reads, "An adenovirus vector comprising a wild type p53 gene under the control of a promoter." Claim 67 reads, "The vector of claim 66, wherein the promoter is a CMV promoter. Claims 68-70 cover other promoters, specifically  $\beta$ -actin, SV40, and RSV. Claim 71 reads, "The vector of claim 66, wherein the wild type p53 gene is a human gene." A copy of these claims are attached as Exhibit 2.

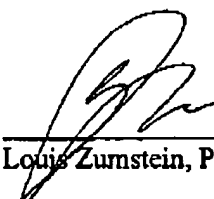
4. From reading the specification, it is clear to me that had a person skilled in molecular biology and tumor suppressor genes read this specification in October of 1992, it would readily described to such a person an adenoviral vector encoding the p53 gene under a promoter, including a CMV,  $\beta$ -actin, SV40, and RSV promoter. This understanding is supported by the specifications on page 6, lines 33-35, which states "Another important 'oncogene' is the gene encoding p53....one of the most common targets for genetic abnormalities in human tumors"; on page 14 lines 22-23, which states "other vectors ... including adenovirus ...."; and page 15, lines 1-4, which states, "While the  $\beta$ -actin promoter is preferred the invention is by no means limited to this promoter, and one may also mention by way of example promoters derived from RSV...SV40...or CMV."

5. I hereby declare that all statements made of my own knowledge are true and all statements made on information are believed to be true and further that the statements were made with the knowledge that willful false statements and the like so made are punishable

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by fine or imprisonment or both under § 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of this application or any patent issued thereon.

August 20/2001  
Date

  
\_\_\_\_\_  
Louis Zornstein, Ph.D.